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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/022,095	12/17/2001	Angelo Vignotto	7587.183US01	2880
23552	7590	01/20/2004	EXAMINER	
MERCHANT & GOULD PC P.O. BOX 2903 MINNEAPOLIS, MN 55402-0903			KYLE, MICHAEL J	
			ART UNIT	PAPER NUMBER
			3676	
DATE MAILED: 01/20/2004				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/022,095

Applicant(s)

VIGNOTTO ET AL.

Examiner

Michael J Kyle

Art Unit

3676

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3 is/are rejected.
- 7) ☒ Claim(s) 4 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Varvello et al ("Varvello", U.S. Patent No. 5,004,358) in view of EPO 0447641 A1 ("EPO '641"). Varvello discloses a sealing device for a rolling contact bearing comprising two races (10, 11) coaxial to each other, two inserts (13, 20) made of metal material and coupled to a relative race, a sealing lip extending between the two inserts (lower portion of figure 1, between inserts 13 and 20), and a phonic wheel (12) supported by a more external of the two inserts (20). The more external of the two inserts (20) comprises an annular housing for containing the phonic wheel that is axially open towards an outside of the bearing and that presents a shield (19). Varvello fails to disclose the shield to completely seal the housing, or that the shield is made of vulcanized rubber.

3. EPO '641 teaches an assembly comprising two bearing races (12, 14) and a phonic wheel (25) contained in a housing (left end portions of 14). The housing is completely sealed by a shield (26) in order to prevent debris from interfering with the phonic wheel or bearing assembly. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Varvello as taught by EPO '641, such that Varvello includes a shield completely sealing the housing, in order to prevent debris from interfering with the phonic

Art Unit: 3676

wheel. Additionally, Official Notice is taken that commercially useful rubber is vulcanized and is common in the art.

4. With respect to claim 2, Varvello discloses the housing to be radially delimited by a first (horizontal component of 13) and second cylindrical wall (horizontal component of 20) that form part of the more external insert. The horizontal component of 20 forms part of the more external insert. The first cylindrical wall defines an internal radial support for the phonic wheel and the second wall defines an annular channel with the other insert.

5. With respect to claim 3, Varvello discloses the second wall to present a cylindrical edge (outer vertical component of 20) that is folded toward the other insert and defines an outer radial limit for the shield.

6. Claims 1-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bertetti et al (“Bertetti”, U.S. Patent No. 6,027,122) in view of EPO 0447641 A1 (“EPO ‘641”). Bertetti discloses a sealing device for a rolling contact bearing comprising two races (3, 5) coaxial to each other, two inserts (15, 31) made of metal material and coupled to a relative race, a sealing lip extending between the two inserts (41), and a phonic wheel (39) supported by a more external of the two inserts (31). The more external of the two inserts (31) comprises an annular housing for containing the phonic wheel that is axially open towards an outside of the bearing. The housing is formed by the upper and lower bent portions of 31. Bertetti fails to disclose a shield that completely seals the housing, or that the shield is made of vulcanized rubber.

7. EPO ‘641 teaches an assembly comprising two bearing races (12, 14) and a phonic wheel (25) contained in a housing (left end portions of 14). The housing is completely sealed by a

Art Unit: 3676

shield (26) in order to prevent debris from interfering with the phonic wheel or bearing assembly.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Bertetti as taught by EPO '641, such that Bertetti includes a shield completely sealing the housing, in order to prevent debris from interfering with the phonic wheel. Additionally, Official Notice is taken that commercially useful rubber is vulcanized and is common in the art.

8. With respect to claim 2, Bertetti discloses the housing to be radially delimited by first and second cylindrical walls (lower and upper portions of 31, respectively) that form part of the more external insert. The first cylindrical wall defines an internal radial support for the phonic wheel and the second wall defines an annular channel with the other insert.

9. With respect to claim 3, the combination Bertetti and EPO '641 discloses the second wall to present a cylindrical edge (uppermost portion of 31) that is folded toward the other insert and defines an outer radial limit for the shield.

Allowable Subject Matter

10. Claim 4 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

Art Unit: 3676

11. Applicant's arguments with respect to claims 1-4 have been considered but are moot in view of the new ground(s) of rejection. Claims 1-3 now stand rejected under the combination of Varvello in view of EPO '641 and Bertetti in view EPO '641.


12. Applicant argues that Bertetti fails to disclose an annular housing containing the phonic wheel. Examiner considers the upper and lower portions (that form an approximately "C" shape) on the axially outer portion of 31 to form this housing.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael J Kyle whose telephone number is 703-305-3614. The examiner can normally be reached on Monday - Friday, 8:30 am - 5:00 pm.

14. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anthony Knight can be reached on 703-308-3179. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9326.

15. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-2168.

mk


Anthony Knight
Supervisory Patent Examiner
Technology Center 3600